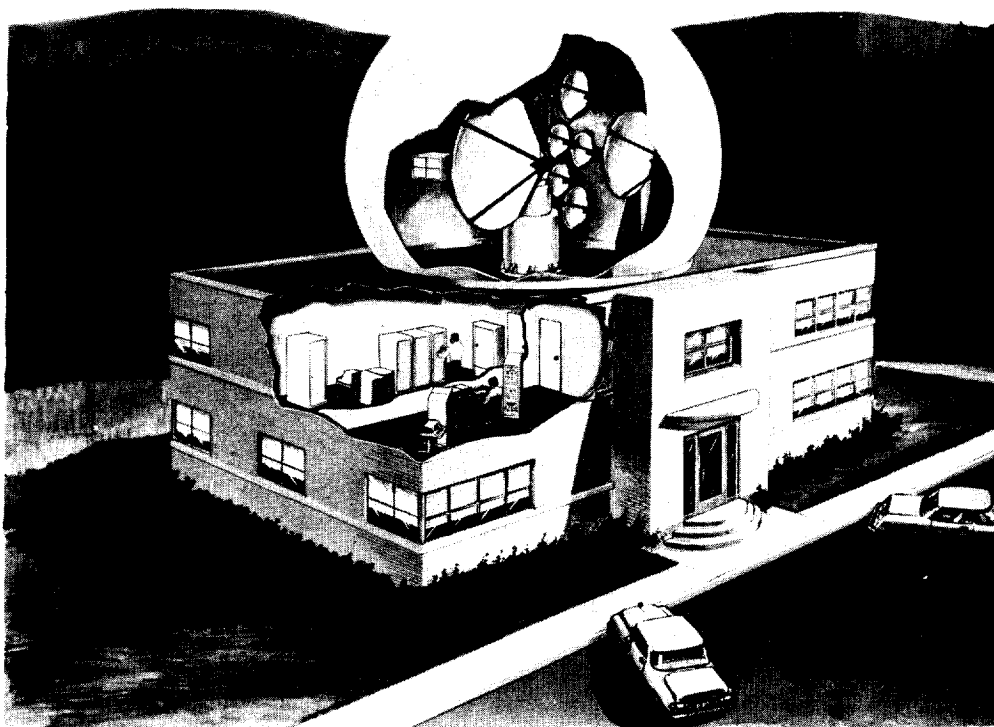


DIRECTORY OF NAVAL TRAINING DEVICES



ELECTRONIC COMBAT TRAINER, DEVICE 15E34A

TRAINING CATEGORY:

RADAR (Electronic Warfare)

data for subsequent retrieval, edit, analysis and training feedback during crew debriefing.

ORIGINATING AGENCY:

DCNO (AIR)

INTENDED USE:

The trainer is designed for use at a fixed site installation at Naval Air Station, Whidbey Island, WA for training airborne EA-6B ECM crewmen.

SECURITY CLASSIFICATION:

Equipment: Unclassified
Software: Secret (NoFORN)

FUNCTIONAL DESCRIPTION:

PURPOSE:

To enable EA-6B aircraft crews to fly in a simulated hostile environment and practice ECM techniques with the ALQ-99 Tactical Jamming System (TJS).

EA-6B ECM emissions are automatically monitored and evaluated by the system computer which stores mission

The Electronic Combat Trainer, Device 15E34A is a fixed site electronic system which simulates 75 independent time multiplexed pulse signals in the 500 MHz to 12 GHz range with 15 signals in any band. In addition to the 5 mission training scenarios furnished, the device permits the operator to modify the scenarios or write new scenarios. Each mission scenario contains up to 300 emitters. From the

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operator's console, the entire training problem is monitored and controlled on a real time basis. The console permits the operator to generate the training mission scenario, monitor the aircrew's performance, and interact with the programmed scenario to modify emitter parameters and alter the sequence of events. The 15E34A automatically evaluates the performance of the EW operator by receiving the jamming signals, comparing them to predetermined reference signals, and analyzing the results to determine the effectiveness of the jamming.

The antenna system consists of a roof mounted, 40' diameter radome, an IFF antenna internal to the radome, and a pedestal (internal to the radome) which mounts 7 parabolic reflectors and 3 rectangular horn antennas. Inside the building are the system electronics and operator controls consisting of: 2 keyboards, 3 CRTs, a printer, and 8 cabinets of electronics, including the system computer, disk and tape drives, and signal generators and analyzers.

Remote site hardware is provided to supply post mission debriefing data to the EA-6B flight crew. The hardware includes a printer, data encryption device and modem.

PHYSICAL INFORMATION:

Number of pieces: Two roof mounted (Radome and Antenna System), sixteen in building.

Size/Wt:

Radome - 40' Dia. 5,585 lbs.
Antenna Pedestal - 18,325 lbs.
IFF Antenna and Structure - 175 lbs.

Maintenance Man-lift - 1,700 lb
Unit 1-43"H x 30"W x 25"D/190 lb.
Unit 2-69"H x 23"W x 30"D/550 lb.
Unit 3-69"H x 23"W x 30"D/550 lb.
Unit 4-24"H x 21"W x 29"D/135 lb.
Unit 5-24"H x 21"W x 29"D/135 lb.
Unit 6-3"H x 18"W x 8.1"D/7 lb.
Unit 7A1-5"H x 10"W x 10"D/26 lb.
Unit 8-69"H x 23"W x 30"D/450 lb.
Unit 11-69"H x 23"W x 30"D/500 lb.
Unit 12-69"H x 23"W x 30"D/500 lb.
Unit 13-69"H x 23"W x 30"D/650 lb.
Unit 14-2"H x 6"W x 11"D/4 lb
Unit 15-5"H x 7"W x 14"D/25 lb.
Unit 17-34"H x 19"W x 34"D/342 lb.
Unit 18-13"H x 15"W x 20"D/35 lb.
Unit 19-48"H x 37"W x 10"D/100 lb.
Unit 20-71"H x 48"W x 32"D/1350 lb.
Unit 34-43"H x 30"W x 25"D/190 lb.
Unit 35-2"H x 6"W x 11"D/4 lb.
Unit 36-5"H x 7"W x 14"D/25 lb.

OPERATIONAL EQUIPMENT:

AN/UPX-27 Interrogator
AN/UPA-59 Decoder and Readout
AN/RT-1150, ARC-159(V) UHF Transceiver
AN/C-9951, ARC-159(V) Control Box
TSEC/KY-28 Nester Equipment
TSEC/KY-28 Control Box
UHF Antenna, A390/SRC
H-158/AIC Adapter (2 ea)
MX-1646A/AIC Adapter (2 ea)
M9177/5-1 Push-to-talk switch (2 ea)
M-87/AIC Dynamic Microphone (2 ea)
9442 (Belden) Retractable Cord (2 ea)

EQUIPMENT REQUIRED (NOT SUPPLIED):

EA-6B Aircraft

POWER REQUIREMENTS:

Input characteristics - 120/208 volt, 3 phase, 4 wire, 60 Hz
90 KVA Maximum

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INSTALLATION REQUIREMENTS:

Roof loading (Radome, Antenna System, roof modifications, and miscellaneous hardware) = static 60,435 lbs. Floor loading (Operator and Simulation Area) = static 10,000 lbs. Air Conditioning: Radome = 63,988 BTU/hr. Operator and simulation area = 52,218 BTU/hr. Special Environmental Characteristics:
Radome withstands up to 120 knot winds.

PUBLICATIONS FURNISHED:

Manual Technical; OEM Instructions with Parts Catalog (U) and Manual Technical; Commercial Standard (Comm. Comp. Doc. Set) (U).

PERSONNEL:

Instructor: One (1) Airborne in EA-6B with student
Operator: One (1)
Trainees: One (1) in EA-6B
Maintenance: TBD
Other: EA-6B Pilot and Navigator

CONTRACT IDENTIFICATION:

Manufactured by Cincinnati Electronics Corporation, Cincinnati, OH under NAVTRASYS-CEN Contract No. N61339-81-C-0025.

LOCAL STOCK NUMBER:

6930-LL-C00-5276